

**ABSTRACT**

A method for examination of a subject comprises the steps of:  
administering (32) a contrast-enhancing agent into a subject  
(7, 42) to be examined, the contrast-enhancing agent  
5 introducing density variations in the subject; directing (33)  
ionizing radiation (3) towards the subject; and detecting (34)  
ionizing radiation spatially resolved as transmitted through  
the subject, while Compton scattered radiation (3a, 3c) in the  
subject is essentially prevented from being detected. The  
10 ionizing radiation directed towards the subject is provided  
within a spectral range so that more photons of the ionizing  
radiation are Compton scattered than absorbed through the  
photoelectric effect in the subject to thereby detect the  
density variations introduced by the contrast-enhancing agent  
15 in the subject spatially resolved.